

Benefits and Challenges of Digital Banking among the Elderly in the Bolgatanga Municipality of the Republic of Ghana

Dzikunu Andrews Dodzi Kobla¹, Asanga Arnold Amasiya²

¹Department of Software Engineering, Zhejiang Normal University, Jinhua, China

²Department of Teacher Education, Zhejiang Normal University, Jinhua, China

ABSTRACT

This paper explores the experiences and perceptions of elderly individuals in the Bolgatanga municipality with regards to digital banking. The study employed qualitative research methods such as interviews and focus group discussions to gather data from participants. The collected data was analyzed to identify key themes, including the benefits and challenges of digital banking among the elderly population in the study area.

The study found that digital banking can provide a number of benefits for the elderly, including convenience, ease of use, and cost savings. For example, many participants reported that digital banking made it easier for them to check their account balances, pay bills, and transfer money without having to physically visit a bank. Additionally, some participants noted that digital banking helped them to save money on transportation costs to and from the bank.

However, the study also identified several challenges faced by the elderly in using digital banking. For instance, many participants expressed a lack of trust in technology, which hindered their adoption of digital banking. Additionally, a significant number of participants reported that they did not have access to digital devices or were not digitally literate enough to use them.

Overall, the study found that while digital banking can offer many benefits for the elderly, it is important to address these challenges in order to ensure that they can fully take advantage of its benefits. The study suggests that targeted education and training programs, as well as outreach to the elderly population could be implemented to increase digital literacy and help to overcome mistrust and lack of access to digital devices.

In conclusion, this study provides valuable insights into the experiences and perceptions of the elderly population in the Bolgatanga municipality with regard to digital banking. It highlights the importance of addressing the challenges faced by this population in order to ensure that they are able to fully benefit from the convenience and cost savings that digital banking can provide.

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KEYWORDS: Digital Banking

Background of the study

Across the world, there have been various efforts to ensure that digital banking has been very successful among customers of financial institutions. This is because, the system of digital banking provides a digitalization drive to improve on the financial and developmental status of countries. To improve financial transactions, financial institutions should ensure enough security features to secure the

platforms and integrations use for digital banking among their customers (Wadesango & Magaya, 2021). Digital banking mainly is about the use of electronic money transaction for personal purposes (Kyari & Akinwale, 2020).

Mungai and Bayat (2018) revealed that digital banking offers a greater variety of financial options

for customers. It has gotten to a stage where digital banking could assist the elderly to manage their finances well. In most banks, digital banking types often used include mobile banking, digital banking, automated teller machine (ATM), telebanking, smart card, debit card, and credit card (Augustine & Kingsley, 2020).

The use of digital banking has greatly transformed the way business transactions has moved from traditional banking system to digital banking system (Aliyu & Tasmin, 2012). Since the introduction and adoption of digital banking across the world, the concept has been used among the category of customers referred to as “elderly” in the banking domain. Countries continuous to make frantic effort to go cashless through exploiting the many benefits associated with digital banking to improve their economies (von Solms & Langerman, 2021). In the study setting, there is limited studies about the benefits and challenges of digital banking to the elderly. This study was designed to address the gap in the literature.

Across the world, the effects of digital banking system have been met with varied responses among customers. That is because flaws in terms of digital banking include poor internet services, vulnerable to criminals assessing customers’ information and illegally transfer of money into their accounts especially in terms of needs (Pankomera & Van Greunen, 2018). Studies have also found that, digital banking has been affected by limited protection of customers, inadequate use of apps to secure the environment, limited disclosure, and limited interests of digital banking and failure by consumers to understand products (Tsanis & Stouraitis, 2021). In SSA, the lack of adequate prudential regulatory enforcement has been a major cause of problem for financial banking sector in terms of digital banking (Mujinga, Eloff & Kroeze, 2018). Over the years, the absence of vigorous implementation of digital banking regulations as well as ineffective digital banking has been the contributory factor to poor implementation among the elderly (Maharaj & Poe, 2021). As a result, Kyari and Akinwale (2020) revealed that the regulatory area of the banking sector has been acknowledged to be poor and have led to many difficulties encountered by the digital banking system. Though some studies have been conducted (Maharaj et al, 2021; Tsanis & Stouraitis, 2021) in respect to the challenges and benefits of digital banking among the elderly, literature is silent on the matter within my study area. Hence credence is further given to the necessity of the study.

The reviewed literature highlights the absence of base level data at the Bolgatanga Municipality about the

effects of digital banking system, due to which no concrete information on effects of financial regulation on the banking system was available. There seems to be no concrete attempts to study this aspect. Therefore, the present study attempted to explain digital banking systems among the elderly in the study setting. This would fill the gap in the literature.

Objectives of the study

1. To examine the importance of digital banking among the elderly in Bolgatanga Municipality.
2. To assess the challenges associated with digital banking among the elderly in Bolgatanga Municipality.

Empirical and Theoretical review of literature

This section seeks to review the Igbaria’s Model as the theory to underpin the study. The theoretical framework elucidates and presents the theory that explains the existence of the research problem at hand. It is not unlike having a road map or an itinerary for your research when you have a theoretical framework to guide you. A theoretical framework may be compared to a map or travel plan. When planning a trip to a foreign country, travelers often look to their own past experiences and the accounts of others who have made similar travels to choose the best means of transportation. According to research (Sinclair, 2007).

The Igbaria’s model was developed in 1996 (Wibowo, 2019). Igbaria's model (IM) suggests that both extrinsic and intrinsic motivators play a role in whether or not people choose to use new technologies (Taherdoost, 2018). Perceived utilization is an intrinsic motivation and perceived utility is an extrinsic motivator, both of which affect behavior (computer use) and attitude, in accordance with this paradigm (computer satisfaction). In addition to these factors, user acceptance is affected by the user's perceptions of its usefulness, fear, satisfaction, and enjoyment when using the technology (actual behavior). Perceived frequency of use and perceived usefulness both have direct and indirect effects on adoption (through satisfaction). Perceived usefulness also affects actual utilization. Anxiety over using computers also has a negative effect on two other dimensions: how often and how usefully people say they use computers. And research has shown that time spent in front of a computer correlates with increased productivity.

Importance of digital banking among the elderly

The importance of digital banking among the elderly would be very importance since the elderly are part of the general population. The importance of digital banking among the elderly is to provide them the opportunity to have access to their funds once they

are saved in the banks. Digital banking provides the opportunity for the elderly to withdraw money from their banks without having to walk to the banking hall. Digital banking also provides the opportunity for the elderly to deposit their funds into their accounts electronically (Fahad & Tanko, 2012).

Additionally, digital banking provides the opportunity for the elderly to move away from the traditional form of banking to banking without the use of physical cash. This helps to reduce thefts that could occur as a result of the elderly carrying physical cash on them (Popoola & Arshad, 2015). Authors have observed that, providing accessible ATMs, SMS banking to customers and debit and credit cards are very important ways to help improve on banking among the elderly. The use of digital banking would ensure that, the elderly ensure the proper use of their hard-earned monies (Al-Fahim, 2013).

Similarly, the use of remittance among the elderly would ensure that, good and services could be bought by the elderly for proper use. When the elderly are educated about the use of digital banking, it enables them save their monies in their wallets. This would enable them to make use of their monies (Marita et al., 2008).

Additionally, Sylvie and Xiaoyan (2005) found that, digital banking provides the opportunity for the elderly to monitor how much they could spend. The use of digital banking enables the elders to get a record of their monies that they spend even if it would be done by a third party. Therefore, the use of digital banking ensures that, the elders are not been cheated always (Sylvie & Xiaoyan, 2005).

Also, the use of digital banking provides, the opportunity for the elderly to become use to social media usage. Technology has made it easy for the elderly to make use of apps and these are often used by banks. The use of social media provides the opportunity for the elderly to make use of social media for sharing and updating their knowledge on digital banking (Salifu et al., 2016).

Similarly, the benefits of digital banking among the elderly are enormous. Digital banking ensures that opening bank accounts is very simple. The use of banking transactions through digital banking enables them to reach the bank through phone calls and websites. The banks also enable the elderly to access their accounts at any time in point. The use of digital banking also ensures that the elders could check their accounts at any point (Brodrick et al., 2019).

Digital banking also provides the opportunity for the elderly to improve on technology and communication technology in the digital era. Therefore, digital

banking ensures that the elders are made to secure their savings and also have access to the banking space (Shunbo et al., 2016). In the banking sector among the elderly, that has ensured that the elders also take part in making the cashless economy very attractive and potential (Muath, 2017; Michael, & Chris, 2016)

Studies have revealed that, there is several importance of digital banking among the elderly and this has provided the opportunity for them to have payment system options. The use of the payment system would provide them the opportunity to make the choice to have access to debit cards and mobile devices to pay their friends and family members. When the elders have access to the various options, they could make mobile money payment system. The use of payment system would ensure that, the elders would go online to engage in online payment (Zheng & Yonghong, 2005).

It has been observed that, digital banking ensures that the elders would spend less on their monies and let them be able to use their monies for their intended purpose always. The use of digital banking allows the banks to provide less time with customers in the banks. This helps to reduce banks employing fewer staff and reducing the mistakes that are associated with serving customers in the banks. The right use of various platforms could reduce the challenges associated digital banking among the elderly. The importance of digital banking saves cost and improves the use of mobile money (Jyoti et al., 2018)

Alex, David and Alex (2016) found that digital banking enables the elderly to reduce the long queues in the banking hall. The use of digital banking reduces the cost of transportation among the elderly to the banking hall (Alex, David & Alex, 2016). It is very important to state that, time management is very important among the elderly. Therefore, any process to help reduce time waste in the banking hall would be greatly appreciated. The use of digital banking improves banking services and reduces waste of time at any point in time (Czaja & Rogers, 2018).

Other authors have revealed that, the use of digital banking improves record keeping that could be used by the elders to monitor their spending especially in time of need. The use of the data generated could be used by the elders to improve on record keeping (Jyoti et al., 2018). The use of digital banking among the elders creates the opportunity for them to improve on their banking skills (Mingming, Khai & Truong, 2018).

In an assessment of digital banking among the elderly, it has been reported that, the elderly has been

using digital banking because of the security. The author revealed that, the elders were using digital banking because of the way it was perceived to be safe and secured (Zheng & Yonghong, 2005). It was revealed that majority of the respondents said banking digitally was more common and they could do it about four to five times. Another study found that, the elderly was not using digital banking because it was not easy to operate always (Muath, 2017)

Challenges associated with digital banking among the elderly

The banking industry has been integrating digital technologies globally. However, accepting new technologies is challenging in particular for older adults (Brodrick et al., 2019). Michele, Janice, and Johnna (2013) for example found that the elderly encounter more problems using digital banking as compared to the younger ones. For example, older adults encountered more problem using smart phones than young adults. As a result, older adults may be affected more by this digital shift in banking than young adults.

Also, digital banking transaction among the elderly through internet can be very impersonal. Most people generally like personalized services. For those kinds of people digital banking is not ideal. Digital banking makes it possible for the banks and their customers to do their business from anywhere in the world (Michele, Janice & Johnna, 2013). But it is extremely difficult for regulatory authorities to enforce finance laws. Additionally, every nation has different regulations. So, it is difficult to enforce same laws and regulation in every country (Salifu et al., 2016).

Eleftheria et al. (2017) studied people's attitudes toward online and mobile banking and found that the main barriers to online banking adoption were the perception of risks, computer and technological skills and Chinese traditional cash-carry banking culture, and the main barriers to mobile banking adoption were lack of awareness and understanding of the benefits provided by mobile banking (Mckinsey, 2015). Moreover, Paypal (2021) studied predictors of users' discontinuance intention of digital banking and found that dissatisfaction, perceived usefulness, perceived task-technology fit, and perceived risk were the main predictors of discontinuance intention.

Similarly, Švecová and Odlerová (2018) found that, using digital banking services, may lead to clients becoming annoyed by constant unnecessary emails and updates. Customers might get overly marketed too and become annoyed by those kinds of notifications. Today digital banking has taken a new shape in the world of technology. The banking

industry is re-shaping itself and moving to a technological approach from traditional approach.

Digital innovations are creating a new picture of banking services. Due to the adoption of digitization, the banking sector in India is facing some remarkable changes as well as hurdles. As people are living in the digital era, it is not possible to avoid the growth and services of digital banking even with the challenges. Everyone uses modern mobile devices called smartphones, which can be easily used to access many digital banking services despite the challenges that might be associated with the practice (Jyoti et al., 2018)

Banking sector has also become more competitive with the advent of digitization and the digital banking program ensures better customer service, thereby attaining the goal of cashless economy. The digitization in banking has started shifting the paradigm of cash and paper-based banking to cashless and paperless banking. On the other hand, the technology has cyber threats which should be properly covered by such a high security system. Low internet connectivity rate, lack of awareness are some other hurdles in the path of digital banking (Švecová & Odlerová, 2018).

Hirak et al. (2021) study showed that most older adults did not adopt digital banking as they still preferred to use the traditional banking system. Even if they used digital banking, they did not find banking websites easy-to-use. Researchers further studied the differences in digital banking between older and young adults. For example, Czaja and Rogers (2018) report shows that digital banking usage in Asia's emerging markets is less popular among older adults than young adults. Olsen et al. found that older adults were more frequent users of a person on the telephone while younger adults used the Internet and ATMs more often (Michael & Chris, 2016)

In a related development, study participants revealed that, it was unsafe to use ATMs or apps. Majority of them felt that they were used to manual processing in physical banks. These top two reasons might reinforce each other. As participants were used to physical banking and unwilling to try ATMs or apps, they would continue to lack experience with ATMs or apps. Due to the lack of experience, they were more likely to continue to feel such platforms were unsafe (Alex et al., 2016; Zheng & Yonghong, 2005; Czaja & Rogers, 2018). The rest of the reasons were related to the design of ATMs and apps. Participants felt that it was inconvenient to read the text on ATMs and apps due to their poor eyesight and that ATMs and apps were too difficult to use (e.g., "I don't know how to

do online banking”, “I’m too old and don’t know how to use it”). Finally, participants also indicated that some transactions could not be handled by ATMs or apps. These reasons highlight participants’ perceived difficulties with ATMs and apps, including trust, legDBility and usability.

Additionally, Mingming, Khai and Truong (2018) found that study participants did not know how to bank online or felt that they were unable to do certain banking transactions online. The authors further revealed that, older adults felt banking websites were not user-friendly and mobile apps were difficult to use.

According to Daniel (1999), due to the high dependency on computers in workplaces, the banking and finance industry for instance tend to report the highest incidence of misuse of customer information. A case in point of breach of security was that of CitDBank in 1994 which is still recalled in the banking and security circles. The incident depicts hackers who penetrated into the bank’s system and wired money to other banks around the world. With the occurrence of such incidence, customer confidence and trust are dependent on how banks put in place systems and institutional mechanisms to deal with erroneous transactions and security concerning e-banking.

Methods and materials

The study used a qualitative approach in the form of a descriptive exploratory study design. The used of the descriptive exploratory study design enabled the study to examine the benefits and challenges of digital banking system among the elderly in the study setting. Authors in the field of qualitative studies have argued that, descriptive exploratory study design is used when the research problem has not been well studied and not clearly defined among the study participants (Creswell, 2008; Polit & Beck, 2012). The merits of employing the study design were the ability of the study to be flexible in the data gathering processes from the study participants in the study setting.

Also, the study could provide a sound basis upon which a research hypothesis could be formulated for a quantitative method of data collection from the study participants. However, the used of the qualitative approach for the data collection could lead to bias since the sample size was usually small. The study used the design for the data collection because it was appropriate for the study on digital banking system among the elderly.

The sample size for this study involved fifteen (15) study participants. This sample size was justified by the scholars in the field of the naturalist paradigm.

For instance, Creswell (1994) argued that, in qualitative study, smaller sample size is usually used. The author argued that, at least eight would suffice for a qualitative data provided data saturation is reached. Also, Ryen (2004) revealed that in qualitative study, the ideal sample should be less than twenty-five. In using the above to justify the used of the fifteen study participants, data saturation was reached with the used of the sample size.

The study employed simple random sampling method to select the banks in the Bolgatanga Municipality. In this study, simple random sampling technique was employed to select the banks. In the Bolgatanga municipality, a list was generated from which the banks were selected. This sampling method was used to ensure that each bank has an equal chance of being selected for the study. After the banks are selected, purposive sampling method was employed to sample respondents or study participants. According to Creswell (2008) purposive sampling method is used by the researcher based on his/her own judgement of the study participants he/she intends to participate in the study. The study employed this sampling method because, it is one of the most widely used sampling method in qualitative research to gather rich data for a study with limited base line studies. Purposive sampling method was used to gather the data from the sampled population that was chosen to enhance the data quality of the subject matter.

RESULTS AND DISCUSSIONS

In this section, the findings of the data gathered from the interviews conducted are presented. The section contains the socio-demographic characteristics of study participants followed by findings of the research questions, which are grouped under main themes with sub themes and categories. The sub themes and categories are supported with verbatim quotes from the interviews. It is important to note that these themes displayed or discussed are not in any particular order of significance. The findings were presented using thematic analysis approach

The thematic analysis is used to give meaning from the data collected providing the basis for the qualitative study. With the conventional thematic analysis, coding categories are derived directly from the text data of study participants and used for the presentation of the findings. This particular approach was particularly used to draw on the responses of study participants concerning the topic at the study setting.

Demographic data of study participants

The demographic variables of study participants were collected. As typical of every research work, the study gathered data from certain variables since that

could enhance the confirm ability of the study findings. These variables included, age, marital status, occupational categories, level of education and number of children of study participants. Each of the variable is explained below.

Table 1.1: Demographic data of respondents

Variable	Frequency	Percent (%)
Age		
50-55 years	9	20
56 + years	6	13.33
Sex		
Male	10	22.22
Female	5	11.11
Education		
SSSCE	3	6.67
Degree	10	22.22
Master's	2	4.44

Table 1.1 presents the age component of the demographic data of the study participants. Age is considered very important in data analysis because age provides the means by which respondents could be assessed objectively in terms of how they understood the variables that were assessed. Based on the results, the modal age was 50-55 years. Assessing study participant age was to enable the researcher to know the level of maturity of their responses based on the variables assessed therefore making the research findings credible and transferable.

Based on the age compositions, majority of the respondents had some appreciable knowledge in digital banking and in most instances been engaged in the use of some digital plat forms. The study presents the responses of the respondents from both male and female. Based on the findings, majority of the respondents representing 22.22% were males. The responses from the females complemented that of the male respondents.

The educational background of the study participants was collected. Based on the findings, most of the respondents who constituted 22.22% indicated that they had obtained a first degree. The educational level of respondents was collected to help assess the basic understanding of respondents in digital banking within the Ghanaian society. Additionally, their level of education had some correlation in terms of familiarity of some existing digital platforms in Ghana. From the results, most of the study participants had two children and the rests had at least three children.

Importance of digital banking among the elderly
Various sub themes emerged on the importance of digital banking among the elderly in the study setting.

Based on the findings, the following have been presented.

Sub theme one: Improved security of cash

At the study setting, it was found that the elderly identified improved security of cash as a form of security in digital banking. One study participant revealed that, carrying money all the times in the wallet or purse was risky and hence there was the need for security measures to prevent the cash from been stolen.... (Male participant: December, 2021)

The implication of elderly using digital banking is to make sure that their regular cash is secured. The used of digital banking among the elderly promotes proper confirmation and authentication. The used of cross verification provides a double check for prevention of any criminal and fraudulent transactions in the bank.

Sub theme two: Reduction of time at the bank

The used of digital banking makes it easy for the elderly to reduce the time they would have spent at the banking hall. As a result, this makes it easy for the elderly to try from time to time to engage in digital banking. One respondent remarked as;

I think standing in the long queues even among the elderly themselves make it easy for them to engage in digital banking always. The used of ATM cards to withdraw small amount of money saves times and makes the transaction very easy to engage in always.... (Male participant: December, 2021)

Practically among the elderly, digital banking makes it easy for them to conveniently conduct financial transactions without having the need to worry of the needed much times always spent at the time. Therefore, using the ATM card becomes very simple for elderly when they are engaged in digital transaction always.

In a related development, study participants have revealed that, using digital banking makes it easy for the elderly to transact seamless cash. One respondent remarked this as;

Sub theme three: Simplified transactions among the elderly

I think now technology is very good. This is because, the elderly has been using it for some time now. The transaction process has become very seamless. In other small shops people now accept mobile money once the elderly person has the mobile banking apps or the digital money wallet. This process has made the transaction of digital banking among the elderly very simple and easy without stress in any form.... (Female participant: December, 2021)

In the broader context of the findings, the seamless transaction of digital banking has made the process

very comfortable for the elderly even among those who may not be able to move to other places to seek proper care in terms of using other mobile apps. In the environment of the elderly, they have been engaged in the practices for some time now and buyers now accept the payment system of mobile banking making the process very easy and simple for the elderly.

In other jurisdictions, engaging in digital banking in the form of using debit cards and other forms of credit cards have made digital banking among the elderly a preferred mode to receive payment methods and even buy other items using Google Pay and other methods. The use of these apps on the phone and even with other system make digital banking somehow preferred digital payment method for the elderly. The elderly could engage in other financial transactions even in the face of falling out and short of liquid cash.

Sub theme four: Promote reward system among the elderly

The use of mobile money among the elderly promotes some form of reward system among the elderly. In order to encourage the elderly to continuously use digital banking, the mobile networks have developed the system of rewarding the loyal customers with money over an extended period of service use. One respondent remarked that in this way;

The banks and the mobile money service operators regularly provide some form of reward in the form of payment to loyal customers. And sometimes also, the banks too do not deduct so much money from engaging in digital banking. These motivate the elderly to continue to use digital banking among the elderly... (Male participant: December, 2021)

In the scheme of work, digital banking promotes different ways the banking system could offer their customers how to practice digital banking and various ways to ensure that the elderly is offered varied types of services for their customers. To promote enhance payment system, digital banking payment methods provide special reward for the elderly without any benefits associated with the process. The elderly as a form of motivation could receive regards and discount on services offered to them as a form of cash backs payment systems.

Sub theme five: Safety of money among the elderly

The safety of money among the elderly is one of the importance of digital banking among the elderly. One respondent indicated that, the importance of digital banking was to promote safety of funds.

The respondent revealed that... digital banking ensures that the elderly monies are safe and the cashless system promotes effective transactions. The

increase in the number of cases of the COVID-19 ensures physical contactless of the money by the elderly. This is one of the importance of the use of digital banking... (Male participant: December, 2021)

Similarly, another study participant revealed how digital banking could be very important to the elderly in this way;

I think using digital banking ensures that the elderly do not spend so much beyond what they were supposed to spend. This ensures that they are spending within the budget discipline in the area ... (Female participant: December, 2021)

In the context of going the cashless way, the elderly promotes the effective spending of their monies. Keeping money in the mobile wallet promotes a good spending habit among the elderly in various ways. They could keep records of how much they are spending and how much they are able to ensure that they do not spend within their budget means. Keeping records of the spending habits ensures financial discipline among the elderly in varied ways. The used of digital mobile money also promotes better expenses among the elderly and this promotes efficient use of resources in diverse ways.

Developing effective and better way to promote the use of digital banking among the elderly ensures that they are better able to use their money well and plan to buy other things in a way that they would be happy. Financial discipline among the elderly ensures well planned life with proper spending. Using a better mobile system that promotes effective payment system ensures that the elderly use their secret codes to enter and have access to their money. Once others are not able to have access to the password of the mobile money wallet, they could also use different biometric logins such as the fingerprints and facial recognition.

Others also use the voiceprint or draw a pattern on the phone as a form of biometric identification system to ensure the money is protected. There is also a risk of promoting limited risk factors such as thefts and the use of no additionally verification system to login to the money. Even with the use of ATM cards, the use of passwords and certain limited access to the secret codes of the cards enable the elderly to ensure effective spending of the money always.

There are also times when they attempt to use certain secret details before they would grant them access to the money. All these are to ensure that money is protected at all times among the elderly. In the ensuing area, the elderly is secured and would use the

right approach to collect the money to promote effective use of their resources always.

Additionally, the use of digital banking among the elderly promotes secure, safe and less physical holding of cash as digital banking promotes good users and even more reason to promote effective digital banking always at any point in time. The risk associated with carrying money always is often reduce among the elderly in terms of how they would promote effective use of limited resources always. In the nutshell, the use of digital banking ensures less restrictions and less check of people engaging in the act. In the expanded form of digital banking, advance features offered a unique form of digital banking and platforms and helps saves money. The use of alert system ensures new payment method for effective use.

The use of digital banking system helps to promote a stable financial system in the life of the person. Ensuring effective access to digital banking system provides the importance of connecting the elderly to other people through banking communities specific to the need of the wants and needs of the elderly. The elderly is encouraged to ensure that they select the most appropriate method to them to promote effective sound method of ensuring that they are not adhering to any limited approach to bad digital banking system.

The emergence of digital banking Platform has transformed the landscape of the Ghana's financial sector and created an appreciable level of ease in doing business (Kubuga&Konjaang, 2016). This has helped to capture a significant segment of the population who hitherto remained unbanked. According to Maurer (2012) many factors explain the rapid increase in the use of mobile money platforms in Ghana as a way to enhance digital banking. Firstly, the strong penetration rate of mobile phones makes the widespread use of mobile-money services possible, particularly in rural areas. Secondly, Ghana's success is the product of a right mix of consumer-driven practices and a favorable regulatory environment for the industry, built on the back of early infrastructure investments (Mas & Radcliffe, 2011).

Challenges with digital banking among the elderly

The challenges associated with digital banking among the elderly were assessed and the findings presented based on the themes and sub themes that emerged. Based on the findings, the sub themes that emerged were suggested. The challenges that the elderly was encountered with in terms of digital banking were identified. There were various forms of challenges that the elderly faced with in the digital banking

environment and had to deal with them in the ever-changing technological age.

Sub theme one: Fear of stolen phone with the money

The study assessed the challenges the elderly was encountering at the study setting. Based on the findings, the elder encountered the problem of fear of having to lose their phones as a challenge of engaging in digital banking. One respondent put it this way;

I think sometimes the fear of losing the phone affect the way the elderly was engage in digital banking at the study setting. Simply put, the elderly sometimes could have their mobile phones lost and their money could be stolen upon the discovery of their secret passwords ... (Female participant: December, 2021)

Therefore, among the elderly, the significant fear of losing their monies and the mobile phone were identified as a challenge of digital banking among the elderly. The elderly considered the risk of concern among the elderly to be more of concern for the youth as compared to the elderly in the study setting. The elderly in their opinion considered that digital banking was effective among the young ones because it was their time this activity became very prevalent. The elderly could easily face the challenge of criminals using the phone to try their password and they have become more sophisticated and that could lead to the elderly becoming disadvantage in their activities leading to them losing their monies.

Similarly, another study participant revealed how the elderly were facing challenges with digital banking in this manner as;

Sometimes, it is very difficult for the elderly to engage in digital banking because it has become very difficult to work with.....The elderly cannot trust their own ability to work with the mobile phones and the other apps that enhances digital banking...The elderly perhaps now would have tried using digital banking channels to navigate... (Female participant: December, 2021)

In the context of the study findings, using digital banking among the elderly has become very difficult for them to practice because of the issue of trust and ability to operate the system. Over the years, the use of modern methods and systems of digital banking has become sometime very difficult for the elderly to work. When it becomes very difficult for the elderly to use, then it comes very expensive to transact mistakes.

Additionally, the used of digital banking among the elderly too exposes them to the risk of mistakes of

attacks and the less used thefts been of targets of the system. The elderly over the years have been fraught with having the challenge to find the technical competences to operate the mobile apps for their use in diverse ways. Exposing the elderly to the technical equipment that are used to ensure digital banking could lead to the elderly having the mistake of showing the password to the thieves. And that could have the potential to lead the elderly to abandon the idea of using digital banking in Ghana.

One respondent remarked again as;

I was a victim of a mobile money fraud or attack in 2020. I received a call from an unknown person who was able to mention my name. He indicated that, he had wrongly sent some money to my mobile money wallet and wanted me to reverse it. Although I was not sure, I was convinced since he mentioned my name immediately, I responded to the call. I tried to reverse the transaction by following his guide. I only realized that I had been duped after realizing that the transaction was false. I lost GhC150 through the process..... (A female respondent, 2021)

I received a call that I had won a promotion on my network. The caller asked me to forward a token to initiate the claim process. It sounded a little bit strange to me although the caller rightly mentioned my name. I failed to heed to his directions after consulting a colleague who confirmed that he had been a victim.....(A male respondent, 2021)

.....I received a text message on my phone asking me to update my details due to an ongoing system configuration. After clicking on the link, I realized I could not access significant applications on my phone. I after resolving the problem, I realized that some money in my mobile wallet was gone.....(A male respondent, 2021)

In the same way, the elderly that would endeavor to take chart of the challenges despite the fears and the challenges would enhance confidence in themselves and would promote an effective use of the apps irrespective of the age. The elderly could use it to reduce the cost associated with the use of digital banking at all times always. To help reduce the challenge of digital banking, there is the need for the elderly to be sure that their banking system is safe, easy to use and very comfortable to use always.

Central to this is an omnichannel strategy that facilitates a smooth digital transition, but that also allows the elderly to come to terms with the use of digital transformation has been the need to try as much as possible to help reduce the menace of digital banking challenges. To help make it more effective for the digital banking, there is the need for

mobile banking to facilitate digital banking that offers no long differentiate response for them to be challenged in the digital world. By offering richer and more meaningful services to the elderly, and providing support and advice when needed, across all channels, a bank can ease the progression to this digital lifestyle among the elderly in a simpler way.

Digitally engaged elderly generally tend to be happier and more importantly loyal to their people in varied ways at all times. Therefore, the elderly, in all forms of helping to reduce the challenges could help built the trust, encourage the users and security to the elderly. Helping the elderly to embrace digital banking would enable them to interact with the rests of the world and possibly provide the elderly the opportunity to ensure effective utilization of the digital environment in the digital transformational agenda.

Sub theme two: Poor network of the system

The challenge of the elderly having to walk to the bank because of the network problems. Sometimes because of the poor network in the area, the elderly sometimes because of the network challenges, if they would require cash to buy an item would require that they need to have a proper network to be able to get the money... (Female participant: December, 2021)

Therefore, the challenge of the elderly having to walk so many miles to acquire the money because of the limited network could discourage the elderly from engaging in any form of proper usage of digital banking always. Therefore, to ensure that, the elderly is protected always, they have to be coached on how best to transact business always with the banks. This has come at the time the elderly could predict the ease and the banking system at any time. The elderly has become very well versed with various systems for explaining the need to engage in digital banking at all times.

The elderly could be challenged with the trouble of having to work so hard to reduce the challenge associated with digital banking if proper measures are not adhered to properly at all times. In the event that, the elderly is asked to send documents through email or sign while banking, there is the need for them to adopt various ways to promote the effective way to ensure that they are delivered in good faith always. When the elderly is not well informed of the need for the use of confidence in digital banking and throw them off completely at all times. Hence building the confidence of the elderly on digital banking would encourage the elderly to ensure an effective use of mobile and ATM apps.

Sub theme three: Mistakes about the use of digital banking

The study further found that, the elderly was worried about the mistakes that the elderly could make about engaging in digital banking. One respondent revealed that;

I have a problem with my eyes. Because of my ill health, it has become very difficult for me to use the mobile phone to engage in serious transactions. Therefore, am always worried about making mistakes when am using the digital banking platform in varied ways... **Female participant: December, 2021)**

Another study participant revealed how they have been challenged by using digital banking in this manner;

I think I fear losing my money to others because of my eye problem. The use of digital banking could lead to loss of money in various ways such as wrong sending of money to the wrong person and sometimes criminals using the mobile phone to withdraw money from the wallet without my knowledge at any point in time.... So the elderly who are been targeted as engaging in digital banking have been justified... **(Female participant: December, 2021)**

In assessing the findings from the perspectives of the study participants, the elderly could be faced with varied problems such as old age could bring a lot of problems such as the risk of losing eyesight and that could lead to the challenge of using digital banking. In rare cases, the illness could prevent the elderly from using digital banking because the condition such as chronic pain, the arthritis, and the large dementia and even the stroke could affect the way they have been using digital banking. In the extreme cases, the condition could affect the elderly macular degeneration, glaucoma, cataracts and diabetic retinopathy affect the way the elderly have been using digital banking over the years. These diseases could potentially affect the way screens and keyboards have been operated.

In other places where the elderly has been to banks and are having challenges, they have dedicated staff who attend to them always all the time to reduce the risk of theft associated with the use of digital banking. To prevent the elderly from frequenting banks with the challenge of digital banking, there is the need for them to ensure that they have limited challenges associated with digital banking.

Sub theme four: Limited use of human resource for digital banking

The elderly hasn't been getting the needed support because of limited support sometimes due to limited

use of trained personnel to help the elderly to get their cash. One respondent remarked as;

The use of remote digital banking especially among the elderly who are not well educated could lead to difficulty in engaging in digital banking at all times. **(Male participant: December, 2021)**

To improve the use of digital banking among the elderly, there is the need for the elderly to be trained in a way that would be effective for them. There have been serious challenges associated with the elders using digital banking. This is based on the simple reason that; limited security measures have been put to reduce the risk.

The purpose of digital banking provides a less complicated work for the elders while that of the younger one has become very less difficulty in banking digitally. To ensure that, the elders are ensured proper in terms of digital banking, there is the need for banks to help the elders to be effective in terms of applicability.

In a related development, digital banking provides a mean by which the system reduces hackers from attaching the elders. The used of weak system make transaction vulnerable to customers.

Also, in terms of mobile money transaction, criminals could employ various ways such as phishing to retrieve relevant information from the elders to dupe them of their money. This usually involves sending email messages to the targets so they could get them easily. The criminals often use the emails to trace to them so they could easily dupe them. Also, the elders sometimes find it very difficult to capture the data. Data capturing processes sometimes lead to errors and this could affect digital banking. Wrongful supply of sensitive information used in creating a personal profile may leave loopholes for hackers to breach.

The impact of the increasing incidents of cyber-attacks is analyzed within the context of Ghana's digital system. Although efforts are being made to protect the back-end infrastructure of the Telcos, the transmission medium to users is being exploited by hackers through the generation of developed codes. These fraudulent activities are increasing in scope, reducing the confidence of users within the digital space and increasing the vulnerability of users.

Other reason ascribed to weak security measures is as a result of obsolete systems which cannot compete with emerging cyber threats executed with varying levels of sophistication (Vlcek, 2011). Due to these weaknesses, scammers are able to manipulate such system and use it to dupe unsuspecting users. Fraudulent technology experts also maneuver the IT

systems to dupe others conceal such acts. The practice is reducing confidence of some Ghanaians in the use of mobile money platforms and these may culminate into significant economic loss to the state if left unchecked.

Ways of improving digital banking among the elderly

There have been ways to improve digital banking among the elderly. This could be done by employing various ways such as the use of good interface to be easily used by the elderly in digital banking. To effectively improve digital banking among the elderly, there is the need for them to effectively use measures that would lead to better usage among the elderly. The use of good banking interface provides good grounds for the banking system to be elderly friendly at all times.

To advance the possible ways to reduce the challenges associated with the elderly use of digital banking, the following themes were advanced.

Sub theme one: Use protective security measures to protect the banks

The use of proper security measures could help to ensure that, the elderly is protected against theft. One respondent remarked as;

I think ensuring that there are proper security measures always would ensure that is a way to protect the elderly from theft.... **(Female participant: December, 2021)**

Employing digital banking means that the elderly are protected against measures that would ensure that they are not vulnerable to theft. To ensure effective means to protect the elderly, means that there should be a better security password that would be adhered to always. The use of finger prints and facial recognition ensures that these measures are ensured to provide secure environment for them to use digital banking.

Similarly, another study participant remarked how they could ensure that they have been protected from the theft of criminals always as;

I think the bank should be able to ensure that, the elderly is introduced to appropriate methods of security measures to ensure that their cash is protected always... **(Female participant: December, 2021)**

The elderly should be made to take the digital banking seriously because the digital banking would improve security of the elderly in various ways.

Additionally, another study participant remarked as; *The banks could help to ensure that the use of digital banking would help to ensure that text messaging*

would help to ensure that the elders are protected all times..... **(Male participant: December, 2021)**

Using digital banking ensures those who are not educated could help to ensure that there is improve way the elderly could use digital banking always. The use of well proven way to ensure effective digital banking would ensure that there is effective way to promote digital banking among the elderly. There is the need for the elderly to engage in proper ways that would promote easy-to-follow educational videos for the elderly. This would ensure that they have the right to be educated on the videos to make it easy to understand.

New technology can be hard to wrap the skills around. Unless clearly shown how to use it, operating digital technology can be a daunting task that may put some elderly people off. Fear of technological change can tie in with this, leading many elders to avoid technology. As well, some elderly people may feel a sense of inadequacy about their digital skills and compare themselves with the younger generation of 'digital natives'. Many government departments now interact with citizens online and having to rely on phone, letter or paper forms can put them at a disadvantage compared with the convenience of online processes if proper training could be done.

Banking is another area in which the internet has made rapid inroads. With so much banking now done online, many financial institutions no longer offer passbook accounts for new customers. The effect of Covid-19 lockdowns, where it may be impossible for people to visit bank branches, increases the importance of getting to know the way around technology. Becoming digitally literate means not only do not have to not have to visit a branch to do the banking, they can take advantage of a wide range of services that digital banking offers.

Similarly, another study participant remarked as;

Digital banking could be improved by the elderly been educated about the use of digital banking... **(Male participant: December, 2021)**

An effective way to ensure that the elderly are made to use digital banking is to promote effective communication system, Where there is enough communication system, the elderly are more likely to be using digital banking as compared to others areas without communications.

In digital banking transaction, most customers would not read messages thoroughly before jumping into replying the message. There is the need for the elderly people to be told of the risk associated with the use of digital banking always. Sometimes, agents allow fraudsters to register SIM cards without using a

recognized national identification card. This has become difficult for the security agencies to track these criminals. Despite the introduction of a policy which compels mobile money agents to confirm the identity of potential customers, the systems are not backed by an effective real time authentication process. Again, multiplicity in Ghana's ID system also comes with its attendant challenge. This explains reasons why there are gaps in the use of mobile platforms as a tool to fast-track Ghana's digital transformation agenda.

Conclusion

The results of the analysis show that, to combat digital banking challenges among the elderly the Bank of Ghana should issue guidelines to assist mobile money operators and agents and banks. The mobile money operators should have internal systems to assist them to combat the menace, as well as transaction limits for agents and subscribers on withdrawal and deposits.

Again, improving the authentication process for users supporting it with a real time user ID authentication system could be ideal. Additionally, the current protection regime does not cater for instances where PIN are fraudulent acquired from users through the generation of phishing codes by users. The analysis of digital banking among the elderly revealed that, they might be inherent vulnerabilities which needs to be checked. Ghana cannot have 100% secure systems in terms of her digital transformation agenda but can have almost perfect systems when the country's keep security at the back of the citizens minds in everything they do. The elderly could be educated on the benefits of using digital banking with improved knowledge.

Recommendations

Based on the findings, the following recommendations were suggested;

- It is the responsibility of the mobile money subscribers to help the mobile money operators and security agencies to identify fraudsters' especially involving banking with the elderly mobile phones. They should report cases of scam and assist in investigations to unravel fraudulent transactions.
- Mechanisms should be put in place to manage the risks associated with the digital banking in Ghana among the elderly. The Central bank should educate the elderly on various digital financing and e-business transactions, as well as on money laundering, mobile money fraud and the measures to combat them.

- Management of digital platforms in Ghana should train employee to be aware about risks and security measures during the risk analysis process and understands the financial impacts of potential security risks on the institutions to take measures seriously.
- Management of digital platforms in Ghana should train employee to be aware about risks and security measures during the risk analysis process and understands the financial impacts of potential security risks on the institutions to take measures seriously.

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